



Attorney Docket: EL-8153A  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: WOUTER IJDO ET AL.  
Serial No.: 10/620,617 Group Art Unit: 1755  
Filed: July 17, 2003 Examiner: Michael A. Marcheschi  
Title: VISCOSITY STABLE SMECTITE CLAY SLURRIES

DECLARATION OF WOUTER IJDO UNDER 37 C.F.R. § 1.132

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

I, Wouter Ijdo, do declare that:

1. I am a United States resident and citizen of the Netherlands. I am a Doctor of Chemistry with a degree from Michigan State University.
2. I currently serve as R&D Manager at Elementis Specialties, Inc. of Hightstown, New Jersey. I have worked for the past 3 years in the development and application of clay compositions particularly hectorite clay from our companies mine in Hector, California.
3. I am one of the inventors of the claimed invention in the above-referenced patent application.
4. The specification for the above-referenced application discusses hectorite clays referred to as BENTONE HC and BENTONE CT made by Elementis

Specialties, Inc. BENTONE CT is a naturally occurring hectorite clay. BENTONE HC is a naturally occurring hectorite clay with much of its impurities removed. These two hectorites are clays with more than 90% of their exchange cations being sodium. Sodium is an alkali metal not an alkaline earth metal – see Columns 1 and 2 of the Periodic table.


5. A clay is generally referred to by its dominant exchange ion. For example, those of ordinary skill in the art understand that hectorite clay from the Hector mine in California generally refers to hectorite clay having sodium as the predominant exchange cation. Note that the presence of a dominant cation in the name of a clay does not indicate a clay free of other cations, The properties of a clay are determined by the dominant exchange ion.

6. Those of ordinary skill in the art also understand that the properties of natural and synthetic clays are substantially different. Naturally occurring clays have chemical composition variations that result in variations in density, charge composition, impurity content, and crystallite sizes. By contrast, synthetic clays have a uniform charge density and are virtually impurity free. As a result, those of ordinary skill in the art understand that synthetic and natural clays exhibit numerous differences in properties.

7. I declare that the preceding statements which are made of my own knowledge are true and that the preceding statements which are made on information and belief are believed to be true. I am aware that willful false statements and the like are punishable by fine or imprisonment or both under Section 1001 of Title 18 of the United States Code and may jeopardize the validity of the application or any patent issuing thereon.

6-24-'04

DATE

  
Wouter Ijdo, Ph.D